acm Transactions on Mathematical Software

Volume 24 • 1998

Editor-in-Chief	Ronald F. Boisvert	
Algorithms Editor	Tim Hopkins	
Information Director	Karin A. Remington	
Associate Editors	Martin Berzins	David S. Johnson
	Luc Devroye	George Labahn
	W.H. Enright	J.L. Nazareth
	Patrick Gaffney	John Reid
	John R. Gilbert	John R. Rice
	Eric Grosse	Michael Saunders
	Richard Hanson	William V. Snyder

Published by ACM, Inc.

Copyright 1998 Association for Computing Machinery, Inc.
1515 Broadway, New York, NY 10036
http://www.acm.org/

Research Articles

475 **Berzins, M., Fairlie, R., Pennington, S.V., Ware, J.M.,** and **Scales, L.E.** SPRINT2D: Adaptive Software for PDEs. (Dec.), 475–499.

226 **Bischof, C.H.** and **Quintana-Ortí, G.** Computing Rank-Revealing QR Factorizations. (June), 226–253.

190 **Bik, A.J.C., Brinkhaus, P.J.H., Knijnenburg, P.M.W.,** and **Wijshoff, H.A.G.** The Automatic Generation of Sparse Primitives. (June), 190–225.

190 **Brinkhaus, P.J.H.** See **Bik, A.J.C.** (June), 190–225.

159 **Chow, E.** and **Heroux, M.A.** An Object-Oriented Framework for Block Preconditioning. (June), 159–183.

368 **Ekeland, K., Owren, B.,** and **Øines, E.** Stiffness Detection and Estimation of Dominant Spectra with Explicit Runge-Kutta Methods. (Dec.), 368–382.

475 **Fairlie, R.** See **Berzins, M.** (Dec.), 475–499.

437 **Giering, R.** and **Kaminski, T.** Recipes for Adjoint Code Construction. (Dec.), 437–474.

418 **Govaerts, W.** and **Kuznetsov, Yu. A.** Implementation of Hopf and Double-Hopf Continuation Using Bordered Methods. (Dec.), 418–436.

74 **Gupta, A., Gustavson, F.G., Joshi, M.,** and **Toledo, S.** The design, implementation, and evaluation of a symmetric banded linear solver for distributed-memory parallel computers. (Mar.), 74–101.

74 **Gustavson, F.G.** See **Gupta, A.** (Mar.), 74–101.

159 **Heroux, M.A.** See **Chow, E.** (June), 159–183.

74 **Joshi, M.** See **Gupta, A.** (Mar.), 74–101.

443 **Júdice, J.** See **Facchinei, F.** (Sept.), 443–447.

acm Transactions on Mathematical Software

Volume 24 • 1998

Editor-in-Chief	Ronald F. Boisvert	
Algorithms Editor	Tim Hopkins	
Information Director	Karin A. Remington	
Associate Editors	Martin Berzins	David S. Johnson
	Luc Devroye	George Labahn
	W.H. Enright	J.L. Nazareth
	Patrick Gaffney	John Reid
	John R. Gilbert	John R. Rice
	Eric Grosse	Michael Saunders
	Richard Hanson	William V. Snyder

Published by ACM, Inc.

Copyright 1998 Association for Computing Machinery, Inc.
1515 Broadway, New York, NY 10036
http://www.acm.org/

Research Articles

475 **Berzins, M., Fairlie, R., Pennington, S.V., Ware, J.M.,** and **Scales, L.E.** SPRINT2D: Adaptive Software for PDEs. (Dec.), 475–499.

226 **Bischof, C.H.** and **Quintana-Ortí, G.** Computing Rank-Revealing QR Factorizations. (June), 226–253.

190 **Bik, A.J.C., Brinkhaus, P.J.H., Knijnenburg, P.M.W.,** and **Wijshoff, H.A.G.** The Automatic Generation of Sparse Primitives. (June), 190–225.

190 **Brinkhaus, P.J.H.** See **Bik, A.J.C.** (June), 190–225.

159 **Chow, E.** and **Heroux, M.A.** An Object-Oriented Framework for Block Preconditioning. (June), 159–183.

368 **Ekeland, K., Owren, B.,** and **Øines, E.** Stiffness Detection and Estimation of Dominant Spectra with Explicit Runge-Kutta Methods. (Dec.), 368–382.

475 **Fairlie, R.** See **Berzins, M.** (Dec.), 475–499.

437 **Giering, R.** and **Kaminski, T.** Recipes for Adjoint Code Construction. (Dec.), 437–474.

418 **Govaerts, W.** and **Kuznetsov, Yu. A.** Implementation of Hopf and Double-Hopf Continuation Using Bordered Methods. (Dec.), 418–436.

74 **Gupta, A., Gustavson, F.G., Joshi, M.,** and **Toledo, S.** The design, implementation, and evaluation of a symmetric banded linear solver for distributed-memory parallel computers. (Mar.), 74–101.

74 **Gustavson, F.G.** See **Gupta, A.** (Mar.), 74–101.

159 **Heroux, M.A.** See **Chow, E.** (June), 159–183.

74 **Joshi, M.** See **Gupta, A.** (Mar.), 74–101.

443 **Júdice, J.** See **Facchinei, F.** (Sept.), 443–447.

268 **Kågström, B., Ling, P.,** and **Van Loan, C.** GEMM-Based Level 3 BLAS: High-Performance Model Implementations and Performance Evaluation Benchmark. (Sept.), 268–302.

437 **Kaminski, T.** See **Giering, R.** (Dec.), 437–474.

190 **Knijnenburg, P.M.W.** See **Bik, A.J.C.** (June), 190–225.

418 **Kuznetsov, Yu. A.** See **Govaerts, W.** (Dec.), 418–436.

341 **Marsaglia, G.** and **Tsang, W.W.** The Monty Python Method for Generating Random Variables. (Sept.), 341–350.

368 **Øines, E.** See **Ekeland, K.** (Dec.), 368–382.

368 **Owren, B.** See **Ekeland, K.** (Dec.), 368–382.

475 **Pennington, S.V.** See **Berzins, M.** (Dec.), 475–499.

226 **Quintana-Ortí, G.** See **Bischof, C.H.** (June), 226–253.

475 **Scales, L.E.** See **Berzins, M.** (Dec.), 475–499.

13 **Sharp, P.W.** and **Verner, J.H.** Generation of high-order interpolants for explicit Runge-Kutta pairs. (Mar.), 13–29.

74 **Toledo, S.** See **Gupta, A.** (Mar.), 74–101.

13 **Verner, J.H.** See **Sharp, P.W.** (Mar.), 13–29.

475 **Ware, J.M.** See **Berzins, M.** (Dec.), 475–499.

190 **Wijshoff, H.A.G.** See **Bik, A.J.C.** (June), 190–225.

Algorithms, Certifications, and Remarks

395 **Atkinson, K.** and **Jeon, Y.** Algorithm 788: Automatic Boundary Integral Equation Programs for the Planar Laplace Equation. (Dec.), 395–417.

254 **Bischof, C.H.** and **Quintana-Ortí, G.** Algorithm 782: Codes for Rank-Revealing QR Factorizations of Dense Matrices. (June), 254–257.

184 **Breinholt, G.** and **Schierz, C.** Algorithm 781: Generating Hilbert's Space-Filling Curve by Recursion. (June), 184–189.

383 **Brown, R.** See **Renka, R.J.** (Dec.), 383–385.

334 **Espelid, T.O.** Remark on Algorithm 706: DCUTRI—An Algorithm for Adaptive Cubature Over a Collection of Triangles. (Sept.), 334–335.

386 **Feo, T.A.** See **Resende, M.G.C.** (Dec.), 386–394.

355 **Gautschi, W.** Remark on Algorithm 726: ORTHPOL—A Package of Routines for Generating Orthogonal Polynomials and Gauss-Type Quadrature Rules. (Sept.), 355.

395 **Jeon, Y.** See **Atkinson, K.** (Dec.), 395–417.

102 **Hamilton, K.G.** Algorithm 780: Exponential pseudorandom distribution. (Mar.), 102–106.

351 **Hopkins, T.** Certification of Algorithm 734: A Fortran 90 Code for Unconstrained Nonlinear Minimization. (Sept.), 351–354.

317 **Hu, C.** Algorithm 785: A Software Package for Computing Schwarz-Christoffel Conformal Transformation for Doubly Connected Polygonal Regions. (Sept.), 317–333.

303 **Kågström, B., Ling, P.,** and **Van Loan, C.** Algorithm 784: GEMM-Based Level 3 BLAS: Portability and Optimization Issues. (Sept.), 303–316.

336 **Levin, S.A.** Remark on Algorithm 622: A Simple Macroprocessor. (Sept.), 336–340.

303 **Ling, P.** See **Kågström, B.** (Sept.), 303–316.

1 **MacLeod, A.J.** Algorithm 779: Fermi-Dirac functions of order −1/2, 1/2, 3/2, 5/2. (Mar.), 1–12.

261 **Peters, J.** Algorithm 783: Pcp2Nurb—Smooth Free-Form Surfacing with Linearly Trimmed Bicubic B-Splines. (Sept.), 261–267.

254 **Quintana-Ortí, G.** See **Bischof, C.H.** (June), 254–257.

383 **Renka, R.J.** and **Brown, R.** Remark on Algorithm 761. (Dec.), 383–385.

386 **Resende, M.G.C., Feo, T.A.,** and **Smith, S.H.** Algorithm 787: Fortran Subroutines for Approximate Solution of Maximum Independent Set Problems Using GRASP. (Dec.), 386–394.

184 **Schierz, C.** See **Breinholt, G.** (June), 184–189.

359 **Smith, D.M.** Algorithm 786: Multiple-Precision Complex Arithmetic and Functions. (Dec.), 359–367.

386 **Smith, S.H.** See **Resende, M.G.C.** (Dec.), 386–394.

303 **Van Loan, C.** See **Kågström, B.** (Sept.), 303–316.